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## WITNESS TEST REPORT

Report No.: SZXWT00603439

To :	INTELLITEC INTERNATIONAL INC.	Date:	23-MAR-2012
Att :	DEBBIE FEUERSTEIN		
From :	Mei Lv	E-mail :	Mei.Lv@sgs.com

SGS File No.:	CNDGG50041547	Testing Device Overlook
Buyer :	VAN HAUSER 230, FIFTH AVENUE, NEW YORK, NY 10001, USA	
Supplier :	INTELLITEC INTERNATIONAL INC.	
Manufacturer :	INTELLITEC INTERNATIONAL INC.	
Style Number:	Nil	
Product description:	BELL + HOWELL ULTRASONIC PEST REPELLER	
Service Style :	TESTING WITNESS	
Service Date :	From 10-MAR-2012 to 21-MAR-2012	
Testing Location :	DONGGUAN, CHINA	

### Testing Criteria

Testing sample provided by	By Supplier(see protocol)
Client instruction/specification	Yes(see protocol)
SGS WI number	N/A
Other	

### Comments / Remarks: (Reason)

- Canceled bread and white granulated sugar (as food) for spiders on 12-Mar-2012, as spiders were not eating & drinking.
- Each spider chambers provided 10 recently dead roaches as food for spiders on a daily basis. Used soaked sponges to feed spiders water.
- Four edges of all chambers were sealed by SGS inspectors with un-removable seal labels and chopped with SGS stamp. Each day after counting spiders/ants/roaches quantities and weighting water, SGS inspector replaced new seals.





## STUDY TITLE

### EFFICACY EVALUATION OF BELL + HOWELL ULTRASONIC PEST REPELLER AGAINST ANTS / SPIDERS / ROACHES

## OBJECT

TESTING ULTRASONIC PEST REPELLER AGAINST ANTS / SPIDERS / ROACHES IN LABORATORY ENVIRONMENT. CONDUCTING OBSERVATIONS IN TOTAL 11 DAYS PERIOD, INCLUDING 2 DAYS PRELIMINARY TEST, 7 DAYS DURING TEST AND 2 DAYS POST TEST. THIS IS TO MEASURE THE EFFICACY OF HIGH-FREQUENCY SOUND AS A PEST MANAGEMENT TOOL. BOTH FREQUENCY AND SOUND PRESSURE (dB) ARE IMPORTANT PARAMETERS.

## MATERIALS

FORMULATIONS	BELL + HOWELL ULTRASONIC PEST REPELLER
TEST ARTHROPODS	HEALTHY ANTS, SPIDERS & ROACHES
APPLICATION DEVICES	BELL + HOWELL ULTRASONIC PEST REPELLER
TESTING CHAMBER	SEE BELOW DIAGRAM

## METHODS

### *Summary*

8.5 feet long plastic tunnel is made to connect two chambers on each side. Each chamber is 4 feet (L) x 4 feet (W) x 1.5 feet (H). Ultrasonic Pest Repeller is placed at Chamber A, Chamber B has no ultrasonic pest repeller. Both sides have equal amount of food and water. Ants, Spiders and Roaches will be recorded at 24 hour intervals for total 11 days (or 264 hours). The number of ants / spiders / roaches will be recorded in each chamber. Any ants / spiders / roaches are found in Chamber B (no ultrasonic pest repeller) will be counted as repelled. Any ants / spiders / roaches remain in Chamber A (with ultrasonic pest repeller) will be counted as not repelled.

To determine the efficacy of the Bell + Howell Ultrasonic Pest Repeller for repelling ants, spiders and roaches. This device is tested over a 24 hours interval and total 11 days (or 264 hours) period in a laboratory environment. The test was preceded by a two-day preliminary test to ensure that the test apparatus and the selected food functioned properly.

### *Test sample*

The test sample will be stored in a locked cabinet at ambient temperature and humidity until use in the study.



### ***Preparation and Handling of Ants / Spiders / Roaches***

20 ants, 20 spiders and 20 roaches will be used for both the control test and active test. As spiders are larger and far more aggressive than ants and roaches, they can, and often do, kill smaller pests like ants and roaches. Therefore the testing of spiders and ants/roaches must be conducted separately in different times.

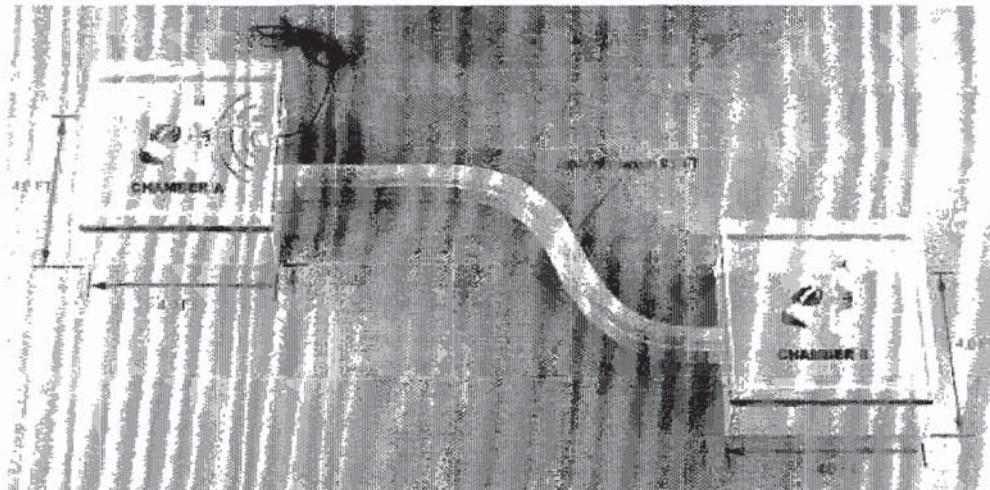
Most of the spiders that have been studied so far seem to have similar dietary and digestive patterns. The first thing that should be stressed is that spiders will only eat living prey (or perhaps very recently killed ones), and the majority of spiders feed on insects, therefore recently dead roaches were used as food for spiders. In order to prevent spiders eat ants and roaches, the testing will be conducted separately, spiders in one testing chamber, ants and roaches together at the other chamber.



### ***Construction of Test Chambers***

The test will be conducted in two plastic chambers; each chamber is 4 feet (L) x 4 feet (W) x 1.5 feet (H). In between, there is a 8.5 feet long plastic tunnel to connect two chambers on each side, ants, spiders and roaches will each be given 11 days (264 hours) to move freely around Chamber A and Chamber B and inside the tunnel.

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### ***Food and Water Consumption***

Data related to food and water consumption will be recorded in each chamber on a 24-hour interval throughout a 11-day (264 hours) period. The data will be used to identify changes in the eating behavior of ants, spiders and roaches due to the impact of the Ultrasonic Pest Repeller.

### ***Fecal pellet counts***

Record and trace fecal pellets of roaches on a 24 hours interval and 11 days (264 hours) period in each chamber. Neither fecal pellet nor urine spots for ants & spiders. This data will aid in understanding additional behavioral changes resulting from the Ultrasonic Pest Repeller.

### ***Preliminary Testing***

Ants / Spiders / Roaches activity will be documented before and after device installation. To observe general activity, a Preliminary Test will be conducted before the actual test to ensure the test apparatus and the selected food functioned properly. The Ultrasonic Pest Repeller will be turned "off" during preliminary testing. The release of Ants, Spiders and Roaches in Chamber A and Chamber B will be proportionate, with 50% of Ants, Spiders and Roaches distributed evenly in each chamber.



The Preliminary Test will consist of 20 ants, 20 spiders and 20 roaches. The pests will be each allotted 2 days (48 hours) to move freely around chamber A, Chamber B and inside the 8.5 feet long tunnel prior to the introduction of the Ultrasonic Pest Repeller.

#### ***Observation of Repellency (During Testing)***

Release 50% of ants, spiders and roaches in Chamber A, and another 50% of ants, spiders and roaches in Chamber B. Turn On Ultrasonic Pest Repeller. Ants, Spiders and Roaches will be recorded at 24 hour intervals for 7 days (or 168 hours). Any ants, spiders and roaches that stay in the Chamber B (without ultrasonic pest repeller) will be counted as repelled. Any ants, spiders and roaches stay inside Chamber A (with ultrasonic pest repeller) will be counted as not repelled.

The During Testing will consist of 20 ants, 20 spiders and 20 roaches. The ants, spiders and roaches will each be given 7 days (168 hours) to move freely around Chamber A and Chamber B and inside the 8.5 feet long tunnel when the Ultrasonic Pest Repeller is ON.

#### **Post Testing**

To observe general activity, a post test will be conducted to ensure the test apparatus and the selected food functioned properly. Ultrasonic Pest Repeller will be turned OFF during post test. Release 50% of ants, spiders and roaches in Chamber A, release another 50% of ants, spiders and roaches in Chamber B.

The Post Test will consist of 20 ants, 20 spiders and 20 roaches. The ants, spiders and roaches are each given 2 days (48 hours) to move freely around chamber A, Chamber B and inside the 8.5 feet long tunnel when the Ultrasonic Pest Repeller is OFF.

No change is made in the ants, spiders and roaches population; the quantity should remain the same.

## **DATA ANALYSIS**

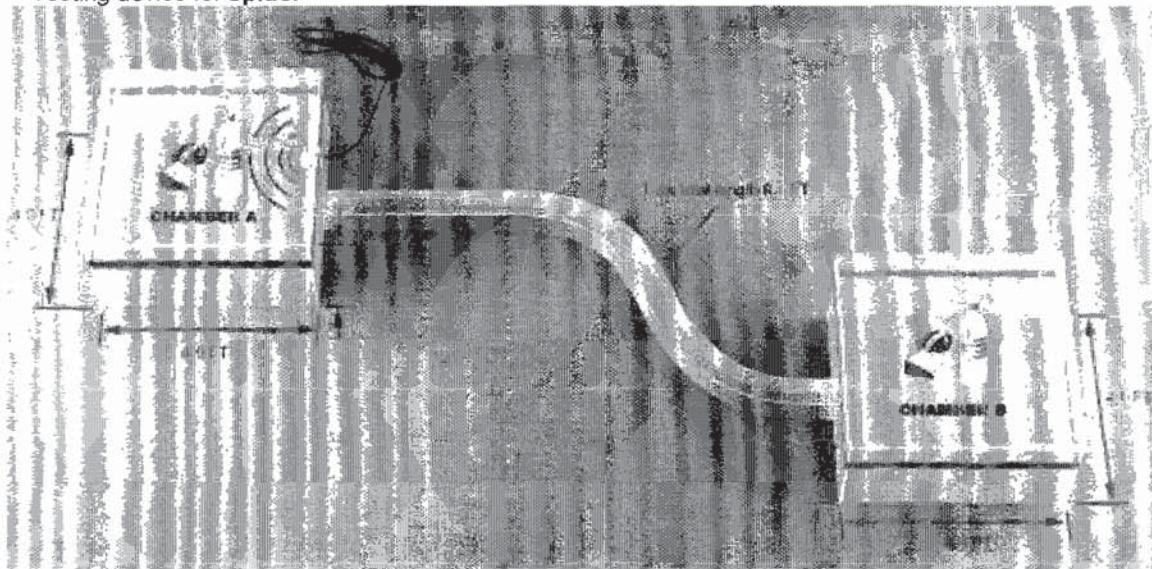
The number of ants, spiders and roaches repelled and not repelled will be analyzed to determine the percent repellency.

All data should be recorded for 2 days (48 hours) Preliminary Test, 7 days (168 hours) of During Test, and 2 days (48 hours) of Post Test.

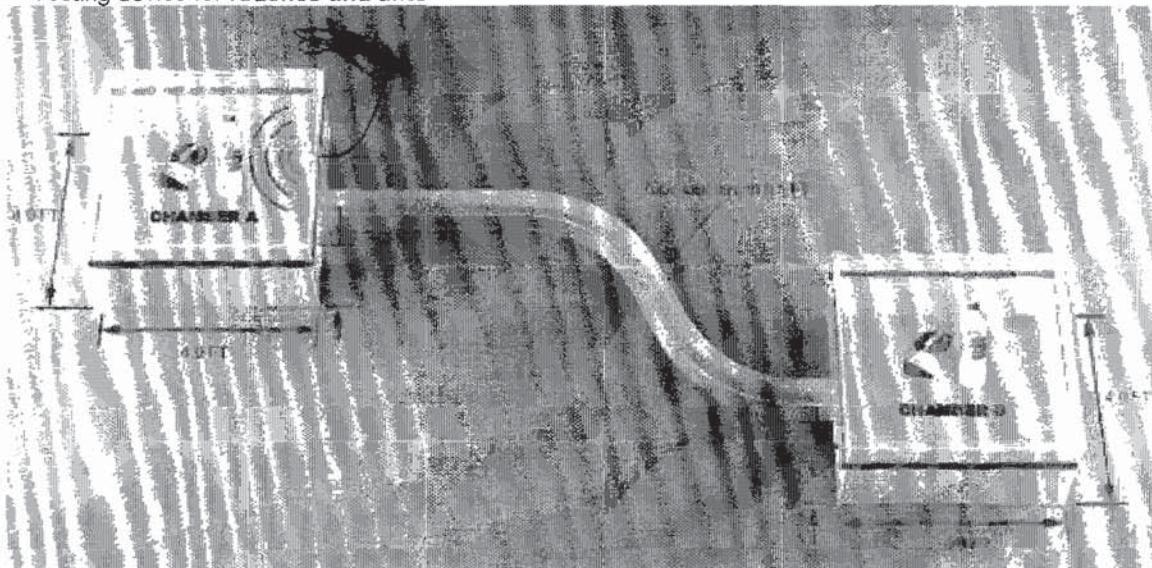
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Testing device dimension (refer to below following figures)

Testing device for spider

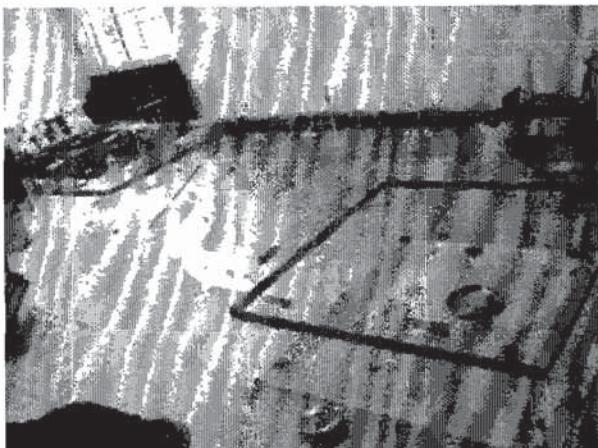


Testing device for roaches and ants

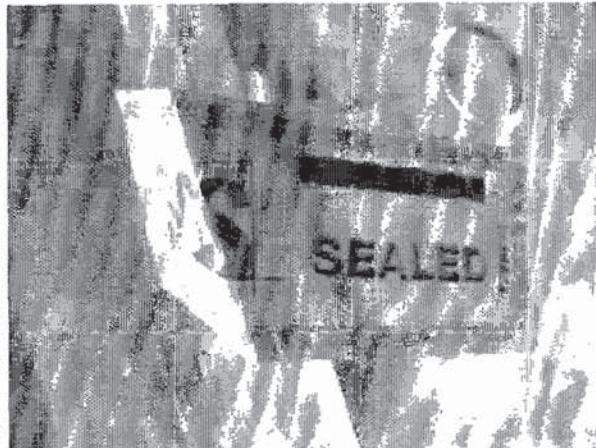


**Note:** Distance between the two devices was about 20 meters

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SPIDER TESTING DEVICE OVERLOOK



SGS UN-REMovable SEAL LABEL



ROACHES AND ANTS DEVICE OVERLOOK



SGS UN-REMovable SEAL LABEL

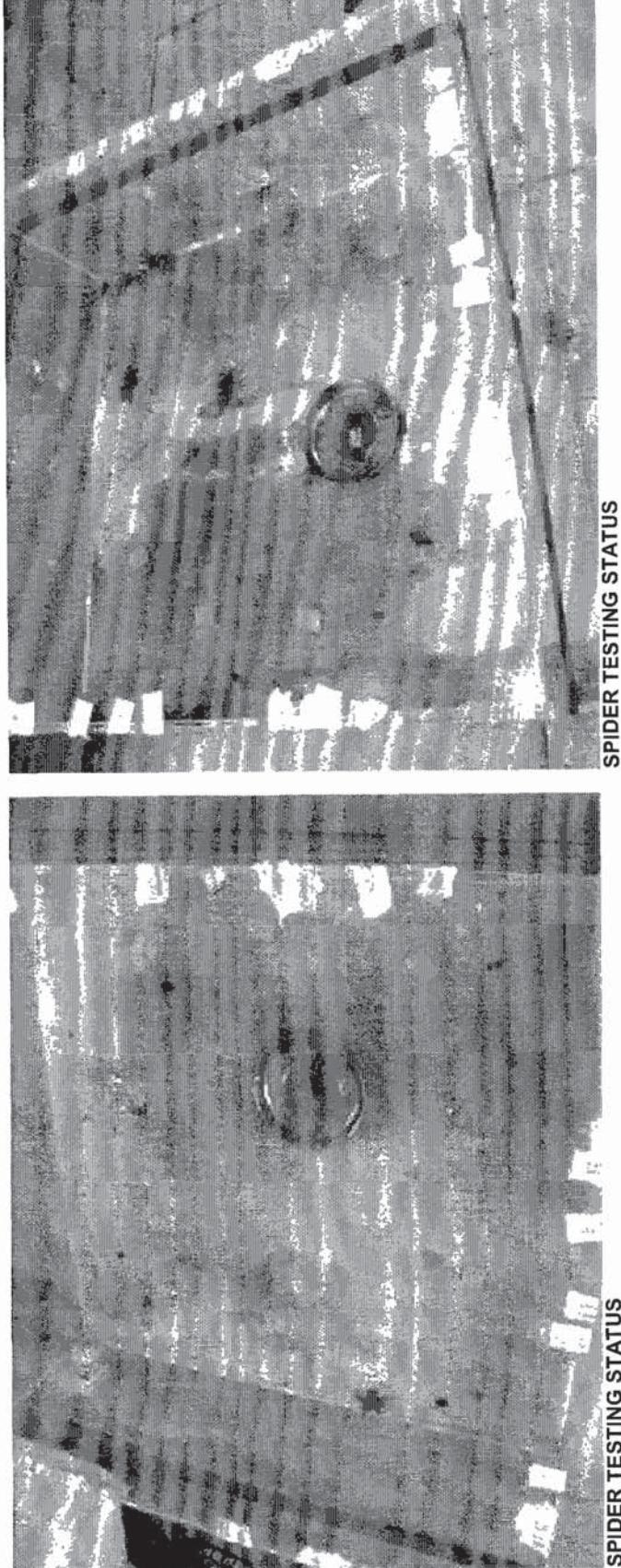
**Test Result Data Measurement –Spider**

SPIDER	PRELIMINARY TESTING			DURING TESTING			POST TESTING		
	SWITCH OFF	24Hrs	48Hrs	72Hrs	96Hrs	120Hrs	144Hrs	168Hrs	+24Hrs
	-48Hrs (-2 Day)	24Hrs (1 Day)	48Hrs (2 Day)	72Hrs (3 Day)	96Hrs (4 Day)	120Hrs (5 Day)	144Hrs (6 Day)	168Hrs (7 Day)	+24Hrs
Observe Date	11-Mar-12	12-Mar-12	13-Mar-12	14-Mar-12	15-Mar-12	16-Mar-12	17-Mar-12	18-Mar-12	+48Hrs
Observe Time	10:30 AM	10:30 AM	10:30 AM	10:30 AM	10:30 AM	10:30 AM	10:30 AM	10:30 AM	+48Hrs
Chamber A (W/Pest Repeller)	quantity consumed food(unit)	10 1	10 2	1 1	2 0	1 0	0 0	0 0	0 0
	consumed water(ml)	39 16	39 16	18 10	18 10	13 8	8 9	3 9	4 8
Chamber B	quantity consumed food(unit)	10 3	10 2	19 4	19 4	19 5	20 6	20 7	12 7
	consumed water(ml)	28 13	28 13	24 59	24 59	36 56	39 51	47 51	46 51

**Note:**

- Cancelled bread and white granulated sugar (as food) for spiders on 12-Mar-2012
- Each spider chambers provided 10 recently dead roaches as food for spiders on a daily basis
- Soaked sponges in the water, this helps spiders drinking water easier

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Page 9 of 19

SGS-F-OPS-05-01-CTS V06

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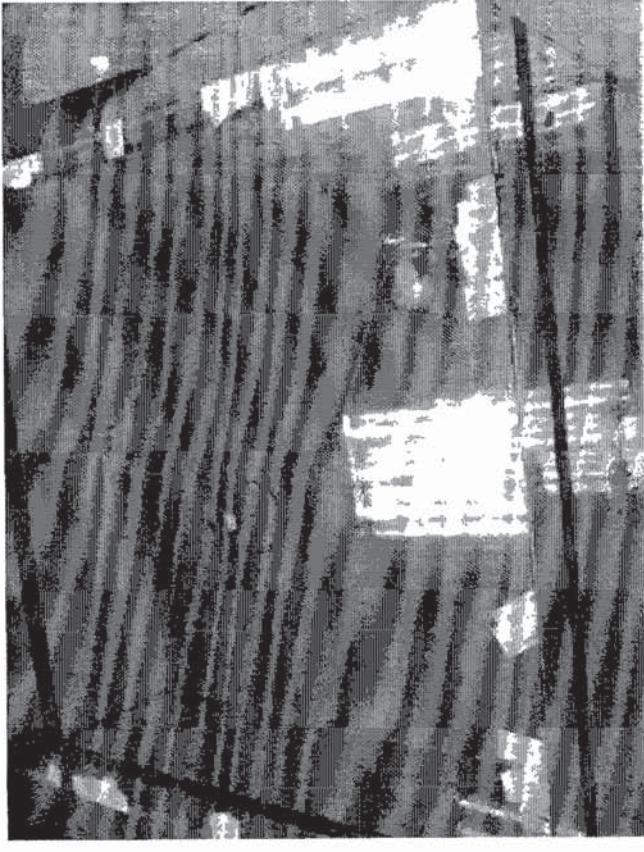


### Test Result Data Measurement –Roaches and Ants

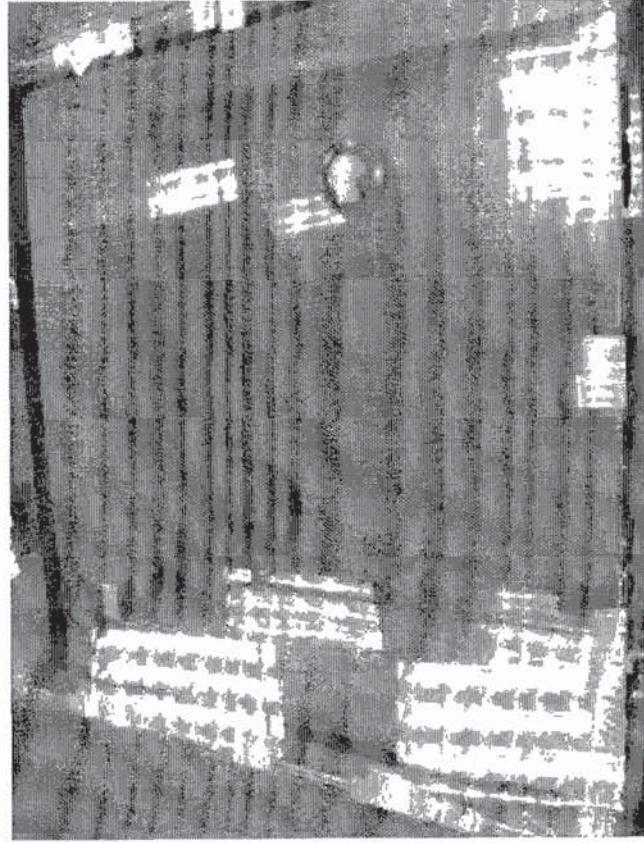
		PRELIMINARY TESTING		DURING TESTING				POST TESTING	
ROACHES & ANTS		SWITCH OFF		SWITCH ON				SWITCH OFF	
-48Hrs		-24Hrs		48Hrs				+24Hrs	
(-2 Day)		(1 Day)		(2 Day)				(+1 Day)	
Observe Date		11 Mar-12		15 Mar-12				19 Mar-12	
Observe Time		10:30 AM		10:30 AM				20 Mar-12	
Chamber A (W/Pest Repeller)	quantity	ANTS	10	1	1	0	0	0	8
	consumed food(g)	ROACHES	7	0	2	1	0	0	8
	consumed water(ml)		7	1	0	0	0	3	5
Chamber B	quantity	ANTS	10	1	4	3	2	1	12
	consumed food(g)	ROACHES	13	10	19	19	20	20	9
	consumed water(ml)		5	2	4	5	2	3	5

- Feed bread & granulated sugar (as food) for ants and roaches.
- Equal amount of food & water were prepared at each chamber daily.

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roaches and ants testing status



roaches and ants testing status



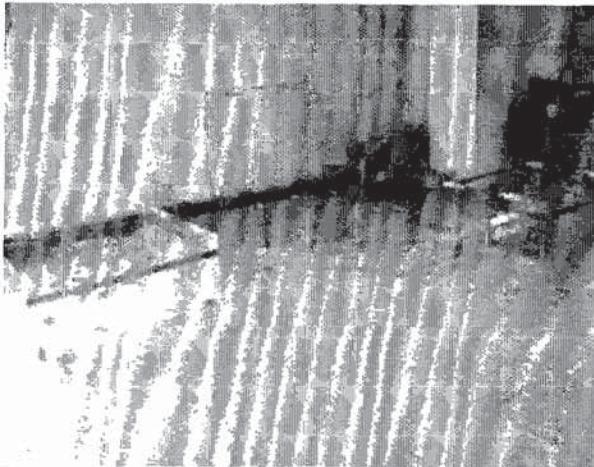
## ROACHES FECAL PELLET RECORD REPORT

STAGE/ SWITCH ON/OFF		DATE	SUBJECT	CHAMBER : A (W PEST PELLER )	CHAMBER : B
PRELIMINARY TESTING	SWITCH OFF	11-Mar-12	roaches	Equal	Equal
		12-Mar-12	roaches	Equal	Equal
DURING TESTING	SWITCH ON	13-Mar-12	roaches	Very little	More
		14-Mar-12	roaches	Very little	More
		15-Mar-12	roaches	Very little	More
		16-Mar-12	roaches	No	More
		17-Mar-12	roaches	No	More
		18-Mar-12	roaches	No	More
		19-Mar-12	roaches	No	More
		20-Mar-12	roaches	Equal	Equal
POST TESTING	SWITCH OFF	21-Mar-12	roaches	Equal	Equal

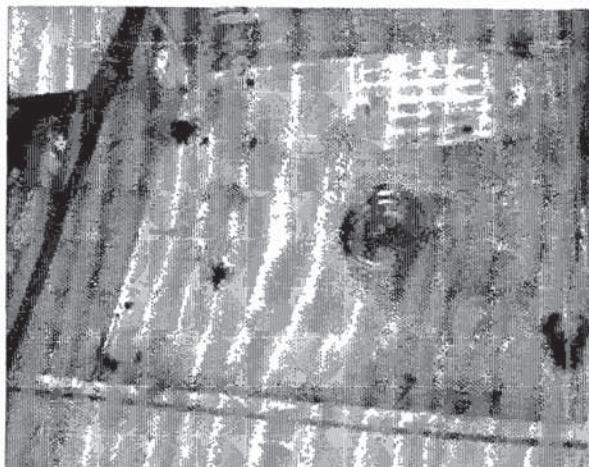
## Note:

- Only fecal pellet of roaches can be observed and witnessed, due to tiny and irregular sizes, fecal pellet were not easy to count, therefore quantity difference is described by three levels – little, very little and more
- There were no fecal pellet found for spiders & ants.

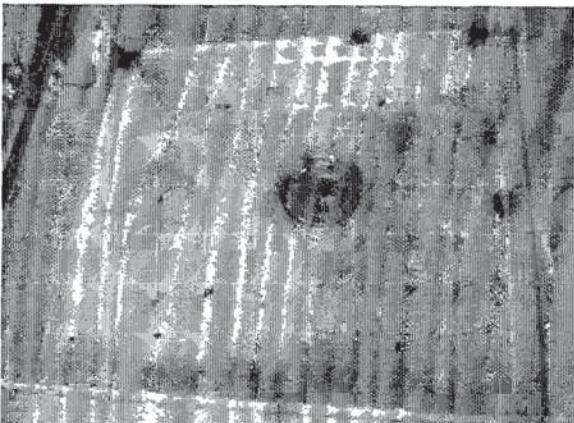
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DEVICE OVERLOOK



ONLY ONE PEST REPELLER IN DEVICE



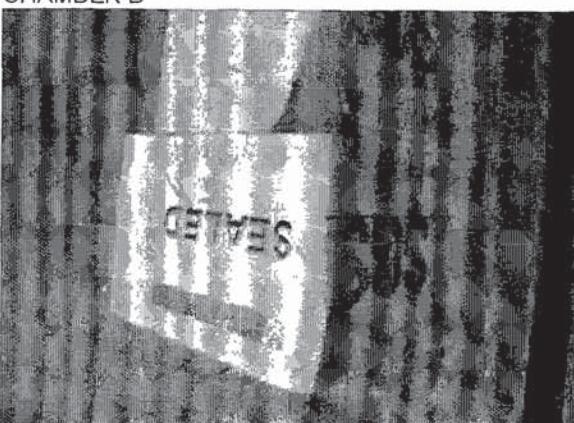
CHAMBER A



CHAMBER B

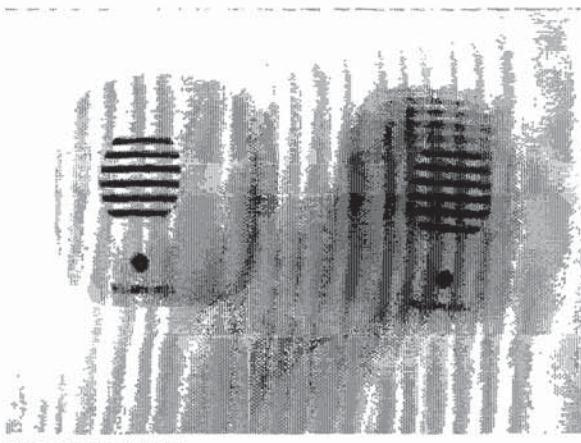


SGS SEAL LABEL

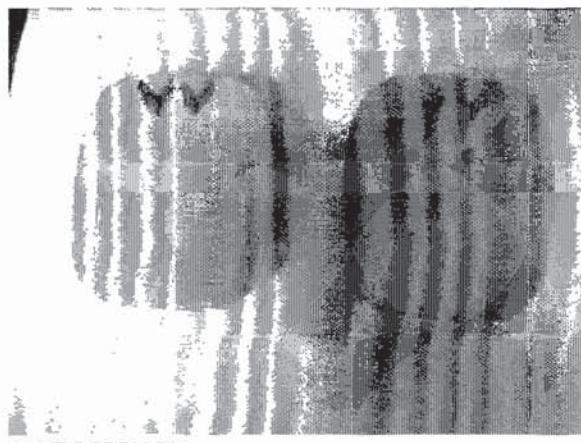


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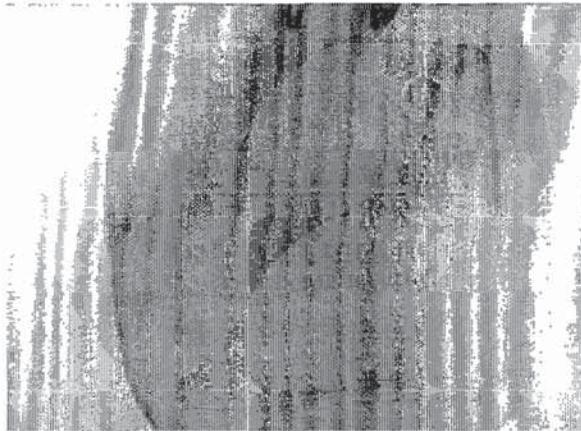
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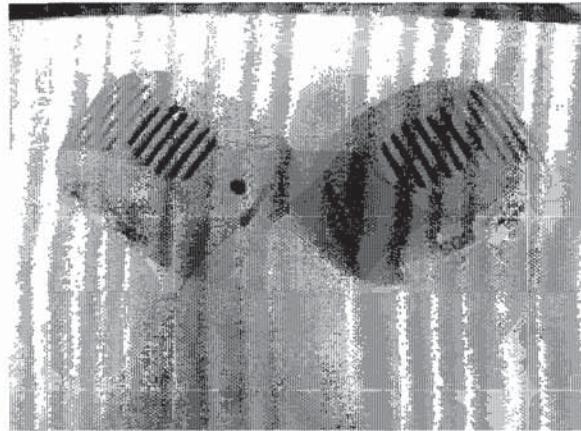
PEST REPELLER



PEST REPELLER



PEST REPELLER



PEST REPELLER

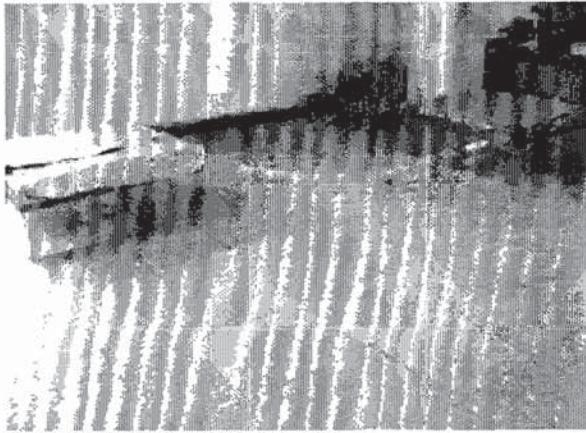


SGS SEAL ON PEST REPELLER



SGS SEAL ON PEST REPELLER

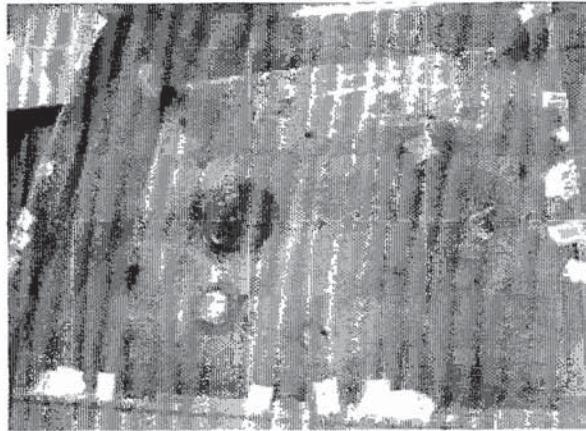
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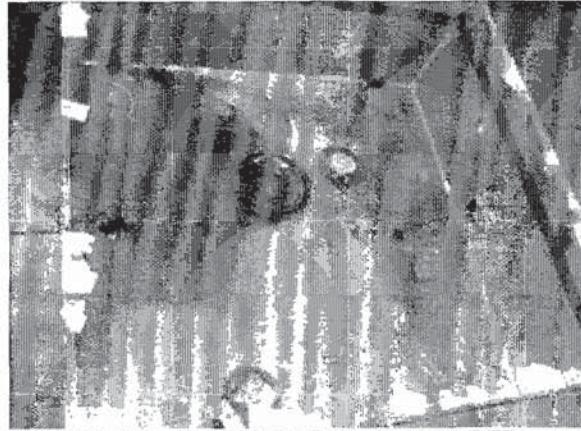
SPIDER DEVICE OVERLOOK



SPIDER DEVICE OVERLOOK



STATUS UNDER REPELLER SWITCHED OFF  
(CHAMBER A)



STATUS UNDER REPELLER SWITCHED OFF  
(CHAMBER B)



STATUS UNDER REPELLER SWITCHED  
ON(CHAMBER A)

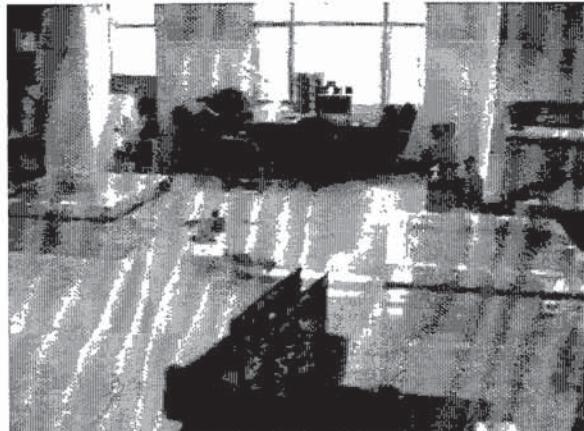


STATUS UNDER REPELLER SWITCHED  
ON(CHAMBER B)

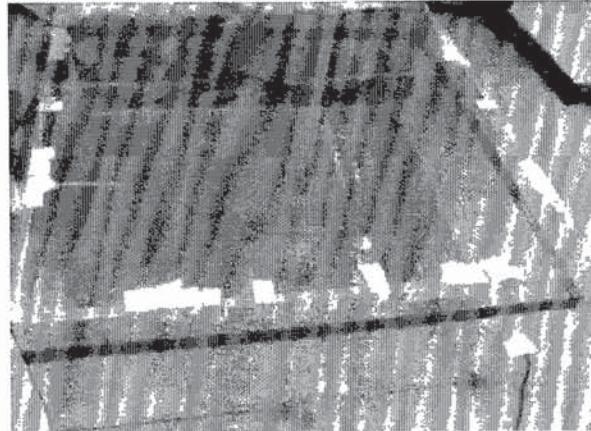
**SGS**



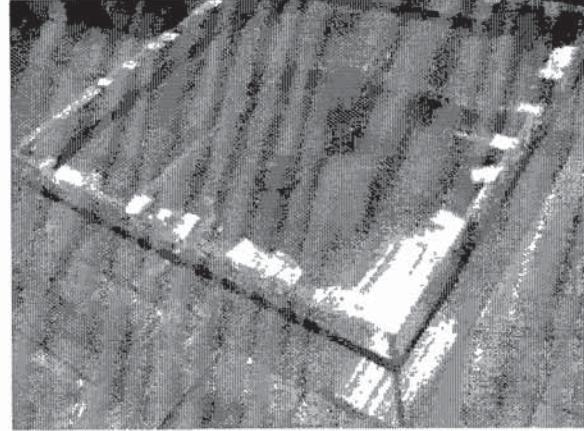
ROACHES AND ANTS DEVICE OVERLOOK



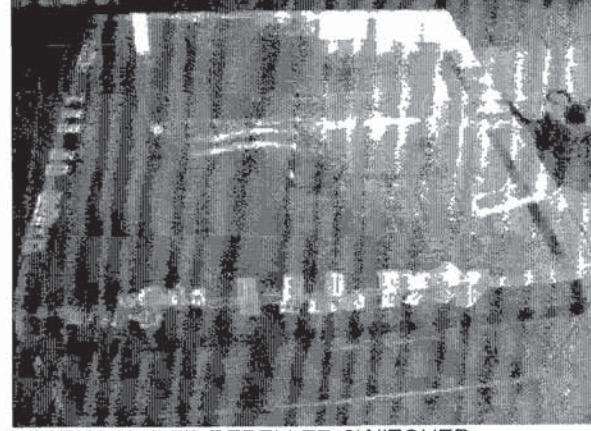
ROACHES AND ANTS DEVICE OVERLOOK



STATUS UNDER REPELLER SWITCHED  
OFF(CHAMBER A)



STATUS UNDER REPELLER SWITCHED  
OFF(CHAMBER B)



STATUS UNDER REPELLER SWITCHED  
ON(CHAMBER A)



STATUS UNDER REPELLER SWITCHED  
ON(CHAMBER B)

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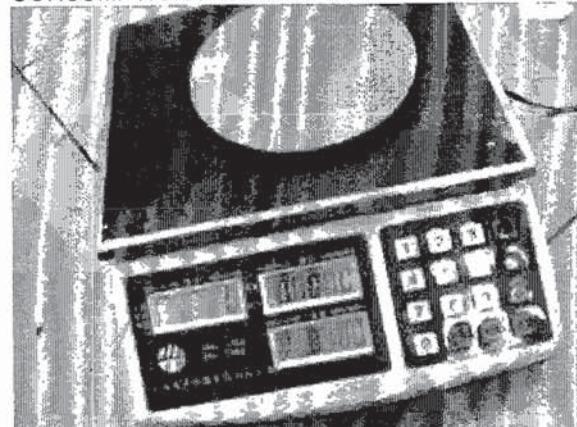
SOAKED SPONGE TO MEASURE WATER CONSUMPTION FOR SPIDERS



SOAKED SPONGE TO MEASURE WATER CONSUMPTION FOR SPIDERS



ROACHES AND ANTS WATER GROSS WEIGHT CHECK



ROACHES AND ANTS RENOVATE WATER WEIGHT

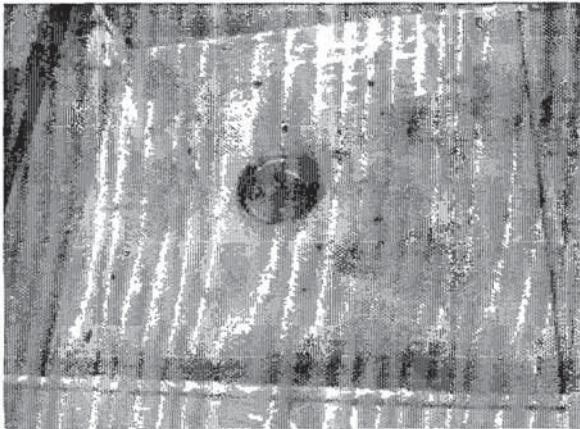


ROACHES AND ANTS FOOD GROSS WEIGHT CHECK

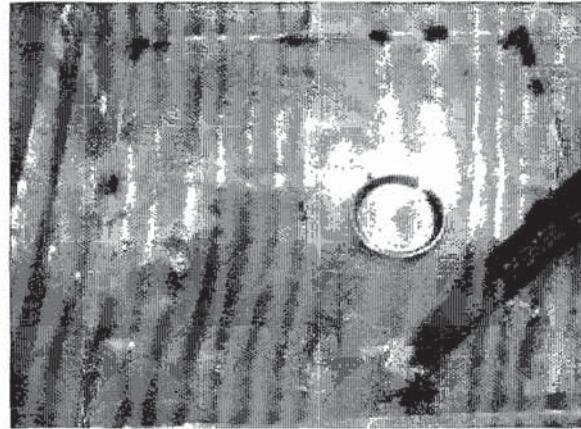


ROACHES AND ANTS RENOVATE FOOD WEIGHT

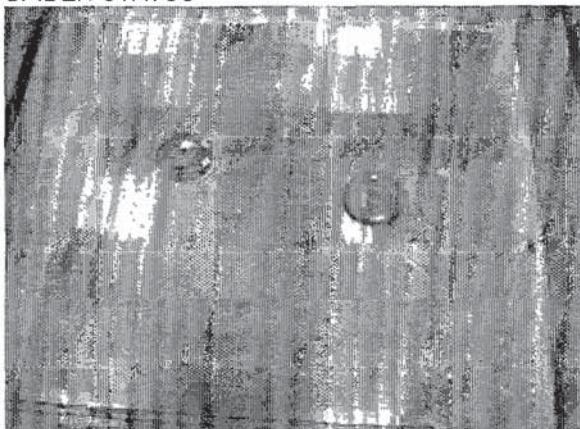
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SPIDER STATUS



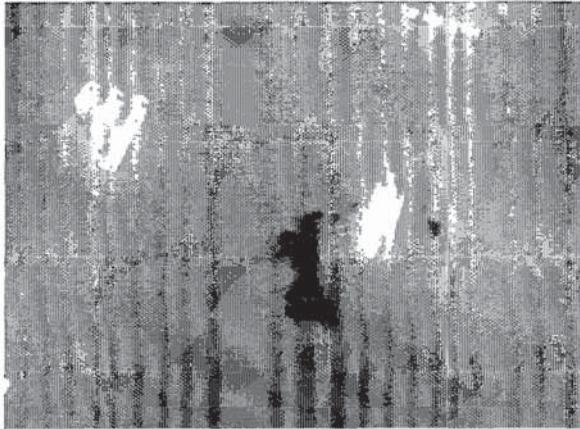
SPIDER STATUS



ROACHES AND ANTS STATUS



ROACHES AND ANTS STATUS



ROACHES AND ANTS STATUS



ROACHES AND ANTS STATUS



Note

In accordance with Client's instructions, the Company's involvement has been limited to witnessing/observing a third party's intervention(s) at the facilities where the intervention(s) took place. The Company's sole responsibility was to be present at the time of the third party's intervention(s) and to confirm and report the occurrence of the intervention(s). The Company is not responsible for methods applied, the qualifications, actions or omissions of the third party's personnel or the results or effectiveness of the intervention(s).

SGS Inspector. ZHIYONG LIU      Factory Representative: \_\_\_\_\_

**\*\*End of Report\*\***

## 2012 SPIDERS / ANTS / ROACHES TEST REPORT RESULT ANALYSIS

March 27, 2012

### Construction of Test Chamber:

- The test was conducted in two plastic chambers. Each chamber was 4' (L) x 4' (W) x 1.5' (H).
- Pest Repeller was placed in chamber A. There was no pest repeller in Chamber B.
- In between, there was a 8.5 feet long plastic tunnel. The tunnel was "curved" and two chambers were designed in Hi-Lo level. The curved and Hi-Lo tunnel design was to further ensure ultrasonic sound wave would not enter from chamber A into chamber B since sound wave was directional.
- All edges were sealed securely with SGS unbreakable labels. Only SGS inspector could open the chambers to count ants / spiders / roaches quantities, weighted food and water and replaced new seals on a daily basis.
- Total 20 ants, 20 spiders and 20 roaches were used, and tested separately in different chambers.
- Released 50% of ants / spiders / roaches in chamber A, and another 50% of ants / spiders / roaches in Chamber B at the beginning of the test.
- There were 3 testing stages:
  - Preliminary Testing: 2 days = 48 hours, pest repeller was OFF
  - During Testing: 7 days = 168 hours, pest repeller was ON
  - Post Testing: 2 days = 48 hours, pest repeller was OFF

### Test Result Analysis (see page 8)

#### Spiders

- Preliminary Testing: 50% spiders stayed in Chamber A, 50% spiders stayed in Chamber B.
- During Testing: Day 1 ~ Day 3, 90%~95% spiders stayed away from Chamber A, Day 4 ~ Day 7, 100% spiders stayed away from Chamber A. Pest repeller was switched ON in Chamber A during testing.
- Post Testing: 40% ~ 55% spiders returned to Chamber A after pest repeller was switched off.
- Water and food consumption was much LESS in Chamber A During Testing when pest repeller was switched on. The consumption quantities were closer in two chambers during Preliminary and Post Testing when pest repeller was switched off. To record water and food consumption result on a daily basis helped to understand spiders' eating behavior under the influence of ultrasonic sound.

#### Ants - Test Result Analysis (see page 10)

- Preliminary Testing: 50% ants stayed in Chamber A, 50% ants stayed in Chamber B.
- During Testing: Day 1 ~ Day 3, 95% ants stayed away from Chamber A, Day 4 ~ Day 7, 100% ants stayed away from Chamber A. Pest repeller was switched on in Chamber A during testing.
- Post Testing: 40% ~ 45% ants returned to Chamber A after pest repeller was switched off.
- Water and food consumption was much LESS in Chamber A During Testing when pest repeller was switched on. The consumption quantities were closer in two chambers during Preliminary and Post Testing when pest repeller was switched off. To record water and food consumption result on a daily basis helped to understand ant's eating behavior under the influence of ultrasonic sound.

**Roaches – Test Result Analysis (see page 10)**

- Preliminary Testing: 35% ~ 50% roaches stayed in Chamber A, 50% ~ 65% roaches stayed in Chamber B.
- During Testing: Day 1 ~ Day 3, 90 % ~ 95% roaches stayed away from Chamber A, Day 4 ~ Day 7, 100% roaches stayed away from Chamber A. Pest repeller was switched on in Chamber A during testing.
- Post Testing: 40% ~ 55% roaches returned to Chamber A after pest repeller was switched off.
- Water and food consumption was much LESS in Chamber A During Testing when pest repeller was switched on. The consumption quantities were closer in two chambers during Preliminary and Post Testing when pest repeller was switched off. To record water and food consumption result on a daily basis helped to understand roaches' eating behavior under the influence of ultrasonic sound.

**Fecal Pellets Count (see page 12)**

- Lab technician traced and recorded pest fecal pellets on a daily basis, this helped to further understand pest's activities and behaviors under the influence of ultrasonic sound.
- Lab technician could only trace fecal pellets from roaches, but no urine spot was observed:
  - When pest repeller was switched on During Testing; fecal pellets appeared to be much LESS quantities in Chamber A.
  - When pest repeller was switched off during Preliminary and Post Testing, fecal pellet quantities appeared to be more EVEN in two chambers.
- There was neither fecal pellet nor urine spot was found from spiders and ants during the entire testing period.